

IN THE CLAIMS

Please amend the claims as follows:

Sub C1  
Claim 1 (Currently Amended): An overlay image processing device for generating an overlay image signal composed of an  $n$  number of superimposed image signals,  $n$  being an integer greater than 2, the overlay image processing device comprising:

a plurality of digital decoders configured to digitally decode a plurality of image signals;

an image selector configured to receive outputs from each of the plurality of digital decoders and configured to select from among the plurality of digitally decoded image signals one reference image signal and  $(n-1)$  number of superimposing image signals;

a plurality of resolution converters configured to receive respective outputs of the image selector directly from the image selector such that any resolution converter can receive any output of the image selector, the plurality of resolution converters further configured to convert resolutions of the  $n$  number of selected image signals including the reference image signal and the  $(n-1)$  number of superimposing image signals into respective desired resolutions; and

an image synthesizer configured to superimpose the  $(n-1)$  number of converted superimposing image signals on the converted reference signal,

wherein the resolution converters output the converted image signals to the image synthesizer.

Claim 2 (Previously Presented): An overlay image processing device according to claim 1 wherein at least one of the plurality of image signals is a display signal output from a personal computer.

Claim 3 (Original): An overlay image processing device according to claim 1 wherein the image selector selects the reference image signal and the  $(n-1)$  number of superimposing image signals according to an arbitrary predetermined order of superposition for the  $n$  number of image signals; and

the image synthesizer superimposes the  $(n-1)$  number of converted superimposing image signals on the converted reference image signal according to the order of superposition.

Claim 4 (Previously Presented): An overlay image processing device according to claim 1 further comprising a scan converter configured to convert at least one of the interlaced image signals selected by the image selector into a non-interlaced image signal when the at least one of the image signals selected by the image selector is an interlaced image signal.

Claim 5 (Previously Presented): An overlay image processing device according to claim 1 wherein the image synthesizer has the  $n$  number of 2-input image synthesizers, each 2-input image synthesizer being configured to receive upper-side and lower-side image signals and superimpose the upper-side image signal on the lower-side image signal;

the  $n$  number of 2-input image synthesizers being connected in series in multistage fashion such that the 2-input image synthesizer of a first stage uses the reference image signal as the lower-side image signal and a first superimposing image signal as the upper-side image signal, while the 2-input image synthesizer of an  $i^{\text{th}}$  stage, where  $i$  is between 2 and  $n$ , inclusive, uses an output of the 2-input image synthesizer of an  $(i-1)^{\text{th}}$  stage as the lower-side image signal and an  $i^{\text{th}}$  superimposing image signal as the upper-side image signal.

Claim 6 (Currently Amended): An overlay image display device for displaying an overlay image composed of an  $n$  number of superimposed images,  $n$  being an integer greater than 2, the overlay image display device comprising:

an overlay image processing device for generating an overlay image signal composed of the  $n$  number of superimposed image signals; and

an image display device for displaying an image represented by the overlay image signal;

wherein the overlay image processing device includes:

a plurality of digital decoders configured to digitally decode a plurality of image signals;

an image selector configured to receive outputs from each of the plurality of digital decoders and configured to select from among the plurality of digitally decoded image signals one reference image signal and  $(n-1)$  number of superimposing image signals;

a plurality of resolution converters configured to receive respective outputs of the image selector directly from the image selector such that any resolution converter can receive any output of the image selector, the plurality of resolution converters further configured to convert resolutions of the  $n$  number of selected image signals including the reference image signal and the  $(n-1)$  number of superimposing image signals into respective desired resolutions; and

an image synthesizer configured to superimpose the  $(n-1)$  number of converted superimposing image signals on the converted reference signal, and

wherein the resolution converters output the converted image signals to the image synthesizer.

Claim 7 (Original): An overlay image display device according to claim 6 wherein at least one of the  $m$  number of image signals is a display signal output from a personal computer.

Claim 8 (Original): An overlay image display device according to claim 6 wherein the image selector selects the reference image signal and the  $(n-1)$  number of superimposing image signals according to an arbitrary predetermined order of superposition for the  $n$  number of image signals; and

the image synthesizer superimposes the  $(n-1)$  number of converted superimposing image signals on the converted reference image signal according to the order of superposition.

Claim 9 (Previously Presented): An overlay image display device according to claim 6 further comprising a scan converter configured to convert at least one of the image signals selected by the image selector into a non-interlaced image signal when the at least one of the image signals selected by the image selector is an interlaced image signal.

Claim 10 (Previously Presented): An overlay image display device according to claim 6 wherein the image synthesizer has the  $n$  number of 2-input image synthesizers, each 2-input image synthesizer being configured to receive upper-side and lower-side image signals and superimpose the upper-side image signal on the lower-side image signal;

the  $n$  number of 2-input image synthesizers being connected in series in multistage fashion such that the 2-input image synthesizer of a first stage uses the reference image signal as the lower-side image signal and a first superimposing image signal as the upper-side image signal, while the 2-input image synthesizer of an  $i^{\text{th}}$  stage, where  $i$  is between 2 and  $n$ ,

inclusive, uses an output of the 2-input image synthesizer of an  $(i-1)^{\text{th}}$  stage as the lower-side image signal and an  $i^{\text{th}}$  superimposing image signal as the upper-side image signal.

Claim 11 (Currently Amended): A method of generating an overlay image signal composed of an  $n$  number of superimposed image signals,  $n$  being an integer greater than 2, the method comprising the steps of:

- (a) digitally decoding a plurality of image signals;
  - (b) receiving outputs from each of a plurality of digital decoders;
  - (c) selecting from among the plurality of digitally decoded image signals one reference image signal and  $(n-1)$  number of superimposing image signals;
  - (d) converting resolutions of the  $n$  number of selected image signals received directly from step (c) including the reference image signal and the  $(n-1)$  number of superimposing image signals into respective desired resolutions by receiving respective outputs of the step (c) such that any resolution conversion can receive any output of the step (c); and
  - (e) superimposing the  $(n-1)$  number of converted superimposing image signals on the converted reference signal,
- wherein an output of step (d) is output to step (e).

Claim 12 (Previously Presented): A method according to claim 11 wherein at least one of the plurality of image signals is a display signal output from a personal computer.

Claim 13 (Previously Presented): A method according to claim 11 wherein the step (c) includes selecting the reference image signal and the  $(n-1)$  number of superimposing image signals according to an arbitrary predetermined order of superposition for the  $n$  number of image signals; and

the step (e) includes superimposing the  $(n-1)$  number of converted superimposing image signals on the converted reference image signal according to the order of superposition.

Claim 14 (Previously Presented): A method according to claim 11 further comprising converting at least one of the image signals selected by the image selector into a non-interlaced image signal when the at least one of the image signals selected by the image selector is an interlaced image signal.

Claim 15 (Previously Presented): A method according to claim 11 wherein the step (e) includes the  $n$  number of 2-input image synthesizing steps, each 2-input image synthesizing step including receiving upper-side and lower-side image signals and superimposing an upper-side image signal on a lower-side image signal;

the  $n$  number of 2-input image synthesizing steps being performed in series in multistage fashion such that the 2-input image synthesizing step of a first stage uses the reference image signal as the lower-side image signal and a first superimposing image signal as the upper-side image signal, while the 2-input image synthesizing step of an  $i^{\text{th}}$  stage, where  $i$  is between 2 and  $n$ , inclusive, uses an output of the 2-input image synthesizing step of an  $(i-1)^{\text{th}}$  stage as the lower-side image signal and an  $i^{\text{th}}$  superimposing image signal as the upper-side image signal.

Claim 16 (Currently Amended): An overlay image processing device for generating an overlay image signal composed of an  $n$  number of superimposed image signals,  $n$  being an integer greater than 2, the overlay image processing device comprising:

an image selector configured to select from among a plurality of image signals one reference image signal and  $(n-1)$  number of superimposing image signals;

a plurality of resolution converters configured to receive respective outputs of the image selector directly from the image selector such that any resolution converter can receive any output of the image selector, the plurality of resolution converters further configured to convert resolutions of the  $n$  number of selected image signals including the reference image signal and the  $(n-1)$  number of superimposing image signals into respective desired resolutions; and

an image synthesizer configured to superimpose the  $(n-1)$  number of converted superimposing image signals on the converted reference signal, the image synthesizer including first and second overlay processors connected in series, the first overlay processor configured to receive an output from a subset of the plurality of resolution converters, and the second overlay processor configured to directly receive an output from the first overlay processor and another of the plurality of resolution converters,

wherein the resolution converters output the converted image signals to the image synthesizer.

Claim 17 (Previously Presented): An overlay image processing device according to claim 16 wherein at least one of the plurality of image signals is a display signal output from a personal computer.

Claim 18 (Previously Presented): An overlay image processing device according to claim 16 wherein the image selector selects the reference image signal and the  $(n-1)$  number of superimposing image signals according to an arbitrary predetermined order of superposition for the  $n$  number of image signals; and

the image synthesizer superimposes the  $(n-1)$  number of converted superimposing image signals on the converted reference image signal according to the order of superposition.

Claim 19 (Previously Presented): An overlay image processing device according to claim 16 further comprising a scan converter configured to convert at least one of the interlaced image signals selected by the image selector into a non-interlaced image signal when the at least one of the image signals selected by the image selector is an interlaced image signal.

Claim 20 (Currently Amended): A method of generating an overlay image signal composed of an  $n$  number of superimposed image signals,  $n$  being an integer greater than 2, the method comprising the steps of:

(a) selecting from among a plurality of image signals one reference image signal and  $(n-1)$  number of superimposing image signals;

(b) converting resolutions of the  $n$  number of selected image signals including the reference image signal and the  $(n-1)$  number of superimposing image signals into respective desired resolutions by receiving respective outputs of the step (a) directly from step (a) such that any resolution conversion can receive any output of the step (a); and

(c) ~~superimposing, by first and second overlay processors connected in series, first~~ superimposing the  $(n-1)$  number of converted superimposing image signals on the converted reference signal, the first ~~overlay processor~~ superimposing receiving an output from a subset of a plurality of steps (b)[[.]]; and ~~the second overlay processor~~

(d) second superimposing a ~~directly receiving an~~ received output from the first overlay processor and another output of the plurality of steps (b),



wherein an output of step (b) is output to step (e).

Claim 21 (Previously Presented): A method according to claim 20 wherein at least one of the plurality of image signals is a display signal output from a personal computer.

Claim 22 (Currently Amended): A method according to claim 20 wherein the step (e) (a) includes selecting the reference image signal and the  $(n-1)$  number of superimposing image signals according to an arbitrary predetermined order of superposition for the  $n$  number of image signals; and

the step (e) includes steps (c) and (d) include superimposing the  $(n-1)$  number of converted superimposing image signals on the converted reference image signal according to the order of superposition.

Claim 23 (Currently Amended): A method according to claim 20 further comprising converting at least one of the image signals selected by ~~the image-selector~~ step (a) into a non-interlaced image signal when the at least one of the image signals selected by ~~the image-selector~~ step (a) is an interlaced image signal.